O 1 P E 48 8 MAY 3 1 7007 W

Substitute for form 1440 TRADEN

Sheet 1

PTOSB08A (07-05)
Approved for use through 07/31/2006. OMB 0951-0931
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Approved for use through 07/31/2006. OMB 0951-0931
Approved for use through 07/31/2006.
Approved f

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)

of 10

Complete II Known					
Application Number	10/596,062				
Filing Date	May 26, 2006				
First Named Inventor	Liu et al.				
Art Unit	not yet assigned				
Examiner Name	not yet assigned				
Attorney Docket Number	22727/04398	$\overline{}$			

Sileet		1 0 110			
				DOCUMENTS	
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2 (if known)</sup>	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		<sup>US-</sup> 4,683,202	07/28/1987	Multins	
		<sup>US-</sup> 4,998,617	03/12/1991	Ladd, Jr. et al.	
		US- 5,593,826	01/14/1997	Fung et al.	
		<sup>US-</sup> 5,952,471	09/14/1999	Griffiths Lawson et al.	
		<sup>US-</sup> 6,379,670	04/30/2002	Gaur, et al.	
		US-			
	1	US-		<u> </u>	

Examiner Cite	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
		Country Code <sup>3</sup> "Number <sup>4</sup> "Kind Code <sup>5</sup> (if known)	MM-DD-YYYY		Or Relevant Figures Appear	T
		EP 235,726	09/09/1987	Dattagupta et al.		
		WO 89/11548	11/30/1989	Saiki et al.		
		WO 93/22456	11/11/1993	Sorenson		
		WO 95/11995	05/04/1995	Chee et al.		

Examiner	Date		· · · · · · · · · · · · · · · · · · ·
Signature	Consi	tered	

"EXAMINER." Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, include copy of this form with next communication to applicant. "Applicant's unique citation designation number (optiona)." See Kinds Codes of USPTO Platter Normania was executed as a post of the platter of the

This collection of information is required by 37 CFR 197 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to proceed) an application. Confidentiality is operanted by 38 U.S. C.122 and 37 CFR 114. This collection is estimated to brunts to complete including gathering, preparing, and submitting the completed application form to the USPTO. Then will vary depending upon the individual case. Any comments on the amount of time you require to complete this form andor suggestions for reducing this burden, should be sent to the Chief Information Office. U. Patient and Trademark. Office, P.O. Box 1450, Alexandria, V.A. 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissionarior for Patients, P.O. Box 1450, Assandria, V.A. 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Use Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number;

	ite for form 1449/PTO				Complete if Known
				Application Number	10/596,062
INF	ORMATION	DIS	CLOSURE	Filing Date	May 26, 2006
STA	TEMENT E	BY A	PPLICANT	First Named Inventor	Liu et al.
	(Use as many she	ote ae n	erossand	Art Unit	not yet assigned
	(ooc as many and	cto do n	cucasary,	Examiner Name	not yet assigned
Sheet	2	of	10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		Aigner, S., et al., "CD24, a mucin-type glycoprotein, is a ligand for P-selectin onhuman tumor cells," Blood 89: (9) 3385-3395 (May 1, 1997).	
		Bai, XF et al "The heat-stable antigen determines pathogenicity of self-reactive T cells in experimental autoimmune encephalomyelitis" J Clin Invest 105 No 9, 1227-32 May 2000	
		Barany, "Genetic Disease Detection and DNA Amplification Using Cloned Thermostable Ligase," Proc. Natl. Acad. Sci. USA, 88: 189-193 (Jan. 1991).	
		Baron, J. L., et al., "Surface Expression of a4 Integrin by CD4 T Cells is Required for Their Entry into Brain Parenchyma," J Exp Med 177:57-68 (Jan. 1993).	
		Carter and Rodriguez, "Immunosupressive treatment of Multiple Sclerosis," Mayo Clinic Proc. 64: 664 (1989).	
		Carton, H., et al., "Risks of Multiple Sclerosis in relatives of patients in Flanders, Belgium," J Neurol Neurosurg Psychiatry 62:329-33 (1997).	
		Collins, "Positional Cloning: Let's not call it reverse anymore" Nature Genetics 1: 3-6 (Apr. 1992).	
		De Bruijn, ML, et al "Induction of heat-stable antigen expression by phagocytosis is involved in in vitro activation of unprimed CTL by macrophages" J Immunol 156:2686-92 1996	
		Donis-Keller, et al., "A genetic linkage map of the human genome," Cell 51:319-337 (Oct. 23, 1987).	
		Ebers, G. C., et al., "A population-based study of multiple sclerosis in Twins", N Engl J Med 315, 1638-42 (Dec. 25, 1986).	

I	Examiner		Date		
ı	Signature		Considered		
•	*EYAMINED: I	eitial if reference considered, whether or not citation is in conformance with MDED 60	Draw line through a	itation if not in conformance and not	

considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional), 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO

to process) an application. Confidentially is governed by 35 U.S. C. 122 and 37 CPR 11.4. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the complete application from to the USPTO. Time will vary depending upon the individual case. Any comments on the anouncil of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Chief. P.O. Box 1450, Alexandria, VA 2231-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patients, P.O. Box 1450, Alexandria, VA 2231-1450.

Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are requir

Substitute for form 1449/PTO		Complete if Known
	Application Number	10/596,062
INFORMATION DISCLOSURE	Filing Date	May 26, 2006
STATEMENT BY APPLICANT	First Named Inventor	Liu et al.
(Use as many sheets as necessary)	Art Unit	not yet assigned
(oad as many sheets as necessary)	Examiner Name	not yet assigned
Sheet 3 of 10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Ebers, G. C., et al., "A full genome search in multiple sclerosis," Nat Genet 13:472-6 (Aug. 1996).	
		Eckert, et al., "DNA polymerase fidelity and the polymerase chain reaction," PCR Methods and Applications 1:17-24 (1991).	
		Eisenhaber, B ,et al. "Sequence properties of GPI-anchored proteins near the omega-site: constraints for the polypeptide binding site of the putative transamidase," Protein	
		(continued from line above) Eng 11 (12) 1155-61 (1998).	
		Englund, P. T., "The Structure and Biosynthesis of Glycosyl Phosphatidylinositol Protein Anchors", Annu Rev Biochem 62:121-38 (1993).	
		Enk, A. H. et al, "Heat-Stable Antigen is an Important Costimulatory Molecule on Epidermal Langerhans' Cells", J Immunol 152:3264-70 (1994).	
		Fischer, GF et al "Signal transduction in mymphocyclic and myeloid cells via CD24, a new member of phosphoinositol-anchored membrane molecules" J Immun 144:638-641, 01/15/1990	
		Gasparini, et al., "Restriction site generating-polymerase chain reaction (RG-PCR) for the probless detection of hidden genetic variation: application to the study of some	
		(continued from line above) common cystic fibrosis mutations," Mol. Cell Probes 6: 1-7 (1992).	
		Gene Bank Accession: NM_013230, 12/03/2006, 4 pgs.	

Examiner		Date	
Signature		Considered	
*EXAMINER:	Initial if reference considered, whether or not citation is in conformance with MPEP 60	9. Draw line through o	itation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. I Applicants unique clation designation number (opponal). A Applicant is to place a chock mark here if Enjagha language Transibilities is the field by the USPTO This collection of Information is required to 93 of ZFR 138. The information is required to obtain or retain a benefit by the public which is to fiel (and by the USPTO to process) an application. Confidentially is governed by 35 US, C. 122 and 37 CFR 1.4. This collection of the set is the state of the public value of the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (07-05)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Und	ter the Paperwork Red	uction Ac	t of 1995, no persons ar	e required to respond to a collection	of information unless it contains a valid OMB control number.
Substitut	e for form 1449/PTO				Complete if Known
				Application Number	10/596,062
			CLOSURE	Filing Date	May 26, 2006
STA	TEMENT B	Y A	PPLICANT	First Named Inventor	Liu et al.
	(Use as many she	ate a e n	acessary)	Art Unit	not yet assigned
	(ose as many one	cto de n		Examiner Name	not yet assigned
Sheet	4	of	10	Attorney Docket Number	22727/04398

Initials* No.¹ the Item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.  Gibbs, "Detection of single DNA base differences by competitive oligonucleotide priming," Nucleic Acid Res. 17 (7):2437-2448 (1989).  Guatelli, et al., "Isothermal, In Vitro Amplification of Nucleic Acids by a Multienzyme Reaction Modeled After Retroviral Replication" Proc Natl Acad Sci, USA 87:1874-78 (1990)  Hahne, M., et al., "The Heat-stable Antigen Can Alter Very Late Antigen 4-mediated Adhesion", J Exp Med 179:1391-5 (Apr. 1994).  Haines, J. L., et al., "A complete genomic screen for multiple sclerosis underscores a role for the major histocompatability complex", Nat Genet 13:469-71 (Aug. 13, 1996).  Haines, J. L., et al., "Linkage of the MHC to familial multiple sclerosis suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F., et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).			NON PATENT LITERATURE DOCUMENTS	
oligonucleotide priming," Nucleic Acid Res. 17 (7):2437-2448 (1989).  Guatelli, et al., "Isothermal, In Vitro Amplification of Nucleic Acids by a Multienzyme Reaction Modeled After Retroviral Replication" Proc Natl Acad Sci, USA 87:1874-78 (1990)  Hahne, M., et al., "The Heat-stable Antigen Can Alter Very Late Antigen 4-mediated Adhesion", J Exp Med 179:1391-5 (Apr. 1994).  Haines, J. L., et al., "A complete genomic screen for multiple sclerosis underscores a role for the major histocompatability complex", Nat Genet 13:469-71 (Aug. 13, 1996).  Haines, J. L., et al., "Linkage of the MHC to familial multiple sclerosis suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F., et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).	Examiner Initials*	Cite No. <sup>1</sup>		T <sup>2</sup>
Modeled After Retroviral Replication* Proc Natl Acad Sci, USA 87:1874-78 (1990)  Hahne, M., et al., "The Heat-stable Antigen Can Alter Very Late Antigen 4-mediated Adhesion", J Exp Med 179:1391-5 (Apr. 1994).  Haines, J. L., et al., "A complete genomic screen for multiple sclerosis underscores a role for the major histocompatability complex", Nat Genet 13:469-71 (Aug. 13, 1996).  Haines, J. L., et al., "Linkage of the MHC to familial multiple sclerosis suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F., et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
4-mediated Adhesion", J Exp Med 179:1391-5 (Apr. 1994).  Haines, J. L., et al., "A complete genomic screen for multiple sclerosis underscores a role for the major histocompatability complex", Nat Genet 13:469-71 (Aug. 13, 1996).  Haines, J. L., et al., "Linkage of the MHC to familial multiple sclerosis suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F., et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
role for the major histocompatability complex", Nat Genet 13:469-71 (Aug. 13, 1996).  Haines, J. L. , et al., "Linkage of the MHC to familial multiple sclerosis suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F. , et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
suggests genetic heterogeneity", Hum Mol Genet 7 (8): 1229- 34 (1998).  Hough, M.R., et al., "Mappig of CD24 and homologous sequences to multiple chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al., "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F., et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
chromosomal loci" Genomics 22: 154-161 (1994).  Hubbe, M. et al, "Heat-Stable Antigen/CD24 on mouse T lymphocytes: evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F. , et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
evidence for a costimulatory function," Eur J Immunol 24:731-737 (1994).  Kellar-Wood, H. F. , et al., "Multiple Sclerosis and the HLA-D region: linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
linkage and association studies," J Neuroimmunol 58:183-90 (1995).  Kerem, et al., "Identification of the cystic fibrosis gene: genetic analysis," Science 245:1073-1080, (Sept. 8, 1989).				
Science 245:1073-1080, (Sept. 8, 1989).				
Kushiyasan C et al 7A putatiya udaganilitu lagun ta multinla adagani				
in a region syntenic to the murine locus Eae2", Nat Genet 13:477-80 (Aug. 13, 1996)			Kuokkanen, S., et al, "A putative vulneraility locus to multiple sclerosis maps to 5p14-p12 in a region syntenic to the murine locus Eae2", Nat Genet 13:477-80 (Aug. 13, 1996)	

Examiner	ı D	Date	1
Signature	l c	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Consideration includes opport of that form with metal communitation is application for the control of the contr

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; OAMB 0651-0031

U.S. Patent and Trademark OAMB 0651-0031

U.S. Patent OAMB 0651-0031

U.S. Patent

Substitute for form 1449/PTO			Complete if Known	
			Application Number	10/596,062
INFORMATIO	N DIS	CLOSURE	Filing Date	May 26, 2006
STATEMENT BY APPLICANT		First Named Inventor	Liu et al.	
(Use as many sheets as necessary)			Art Unit	not yet assigned
(Use as many i	ireets as ir	ecessary	Examiner Name	not yet assigned
Sheet 5	of	10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Kurtzke, J. F. "Rating neurologic impairment in multiple sclerosis: an expanded disability status scale (EDSS)," Neurology 33:1444-1452 (Nov. 1983).	
		Kurtzke, "Clinical definition for multiple sclerosis treatment trials," Ann. Neurol. 36:S73-S79, (1994).	
		Kwoh, et al., "Transcription-based amplification system and detection of amplified human immunodeficiency virus type 1 with a bead- based sandwich hybridization format", Proc.	
		(continued from line above) Natl. Acad. Sci. USA 86:1173-1177 (Feb. 1989).	
		Landegren, U., et al., "A ligase-mediated gene detection technique," Science 241:1077-1080 (Aug. 26, 1988).	
		Lander, et al., "Strategies for Studying Heterogeneous Genetic Traits in Humans by Using a Linkage Map of Restriction Fragment Length Polymorphisms," Proc. Natl. Acad. Sci.	
		(continued from line above) USA 83:7353-7357 (Oct. 1986).	
		Lander, et al., "Construction of multilocus genetic linkage maps in humans," Proc. Natl. Acad. Sci. USA 84:2363-2367 (Apr. 1987).	
		Lander, et al., "Mapping Mendelian Factors Underlying Quantitative Traits Using RFLP Linkage Maps," Genetics 121:185-199 (Jan. 1989).	
		Lathrop, "Strategies for Multilocus linkage analysis in humans," Proc. Nat. Acad. Sci. USA 81:3443-3446 (Jun. 1984).	

Examiner	Date	
Signature	Considered	
THE PARTY OF THE P		_

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered, leading account this form with part communication to confidered.

considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English tanguage Translation is attached.

<sup>1</sup> Applicants unique citation designation number (optohal). A Applicant is to place a check, mark here it English language Translation is attached.
This collection of Information is required by 37 CFR 1.08. The information is required to obtain or retain a benefit by the public which is to fine fand by the USPTO to process) an application. Confidentially is governed by 35 U.S. C. 122 and 37 CFR 1.14. This collection is essimated to take 2 hours to complete, including a manufacture of the confidentially is governed by 35 U.S. C. 122 and 37 CFR 1.14. This collection is essimated to take 2 hours to complete, including an amount of time by care required to complete in the form and/or suggestators for reducing this business, hould be seen to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandris, N.Z. 2231-4450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandris, N.Z. 2313-1450.

PTO/SB/08B (07-05) Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons an Substitute for form 1449/PTO	e required to respond to a collection	of information unless it contains a valid OMB control number.  Complete if Known
	Application Number	10/596,062
INFORMATION DISCLOSURE	Filing Date	May 26, 2006
STATEMENT BY APPLICANT	First Named Inventor	Liu et al.
(Use as many sheets as necessary)	Art Unit	not yet assigned
load as many secta as necessary)	Examiner Name	not yet assigned
Sheet 6 of 10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Liu, Y., et al., "Co-stimulation of murine CD4 T cell growth: cooperation between B7 and heat-stable antigen", Eur J Immunol 22:2855-2859 (1992).	
		Liu, Y., et al., "Heat-stable Antigen is a Costimulatory Molecule for CD4 T Cell Growth", J. Exp. Med. 175:437-45 (Feb. 1992).	
		Liu, Y. , et al., "Distinct Costimulatory Molecules are Required for the Induction of Effector and Memory Cytotoxic T Lymphocytes," J Exp Med 185 (2): 251-62 (Jan. 20, 1997).	V
		Liu, X. , et al., "B7H Costimulates Clonal Expansion of, and Cognate Destructionof Tumor Cells by, CD8+T Lymphocytes in Vivo," J. Exp. Med. 194 (9):1339-1348 (Nov. 5, 2001).	
		Martin, E. R. , et al., "A Test for Linkage and Association in General Pedigrees: The Pedigree Disequilibrium Test," Am J Hum Genet 67:146-54 (2000).	
		Mattila, et al, "Fidelity of DNA synthesis by the Thermococcus litoralis DNA polymerase-an extremely heat stable enzyme with proofreading activity" Nucleic Acids Res 19 (1991)	
		McDonald, et al. "Are magnetic resonance findings predictive of clinical outcome in therapeutic trails in multiple sclerosis? The dilemma of initerferon-beta," Ann. Neurol.	
		(continued from line above) 36:14-18 (1994).	
		McDonald, W. I., et al., "Recommended Diagnostic Criteria for Multiple Sclerosis: Guidelines from the International Panel on the Disgnosis of Multiple Sclerosis," Ann Neurol.	
		(continued from line above) 50:121-7 (2001).	

Examiner	Date	-
Signature	Consider	red
*EYAMINER: Initial if reference considered, whether or	not citation is in conformance with MDED 609. Draw line	through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (add by the USPTO to process) an application. Conflicitatility is governed by 35 U.S.C. 123 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time your require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Awardidy, N.V. 2331-1450. DO NESS END FECS OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (07-05)
wed for use through 07/31/2006 OMB 0651-0031

Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		Complete if Known
Sassina is is in 14407 Fo	Application Number	10/596,062
INFORMATION DISCLOSURE	Filing Date	May 26, 2006
STATEMENT BY APPLICANT	First Named Inventor	Liu et al.
(Use as many sheets as necessary)	Art Unit	not yet assigned
(ode as many sheets as necessary)	Examiner Name	not yet assigned
Sheet 7 of 10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		McKusik, V.A., CD24 Antigent; CD24, OMIM Online Mendelian Inheritance in Man, available at: http://www.ncbl.nlm.nih.gov/entrez/dispomim.cgi?id=600074 (created 8/4/1994, last	
		(continued from line above) updated 6/14/2006), 3 pgs.	
		Miller, D. H., et al. "Class II HLA antigens in multiple sclerosis," J Neurol Neurosurg Psychiatry 52:575-7 (1989).	
		Mitchell, "Update on Multiple Sclerosis Therapy", Cont. Clin., Neurol. 77 (1): 231-249 (Jan. 1993).	
		Monaco, et al., "Detection of deletions spanning the Duchenne muscular dystrophy lucus using a tightly linked DNA segment," Nature 316:842-845, Aug. 29 1985.	
		Morling, N., et al., "Immunogenetics of multiple sclerosis and optic neuritis: DNA polymorphism of HLA class II genes," Immunogenetics 35:391-4 (1992).	
		Nickerson, D.A., et al., "Automated DNA diagnostics using an ELISA-based oligonucleotide ligation assay," Proc. Natl. Acad. Sci. USA, 87:8923-8927 (Nov. 1990).	
		Noseworthy, J. H. "Progress in determining the causes and treatment of multiple sclerosis," Nature 399 Supp., A40-47 (Jun. 24, 1999).	
		Okamoto, M., et al., "Heterogeneous Expressions of GPI-Anchored Proteins by Granulocytes from Patients with Aplastic Anemia (AA) and Myelodysplastic Syndrome (MDS)," Journal	
		(continued from line above) Blood 100 (11); No. 3508, ABSTRACT ONLY (Nov. 16, 2002).	

Examiner		Date	
Signature		Considered	
*EXAMINER:	Initial if reference considered, whether or not citation is in conformance with MPEP 60	9 Draw line through o	itation if not in conformance and not

"EAAMINEX: Initial If reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 3° CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentially is powered by \$8.1 S. C. 122 and \$7 CFR 1.1.4. This collection is estimated to lake 2 hours benefit by a public by a submitting the completed application from to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden. Should be sent the the Other Information U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, N. 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, N. 22313-1450.

Approved for use through 07/31/2006. OMB 0551-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Linder the Panework Reduction Act of 1995 no persons are required to respond to a collection of information unless trademark office; a valid OMB control number

Under the Paperwork Reduction Act of 1995, no persons an Substitute for form 1449/PTO	e required to respond to a collection	of information unless it contains a valid OMB control number.  Complete if Known
Substitute for form 1443/2-10	Application Number	10/596,062
INFORMATION DISCLOSURE	Filing Date	May 26, 2006
STATEMENT BY APPLICANT	First Named Inventor	Liu et al.
(Use as many sheets as necessary)	Art Unit	not yet assigned
(ose as many sincers as necessary)	Examiner Name	not yet assigned
Sheet 8 of 10	Attorney Docket Number	22727/04398

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
		Olerup, O. et al. "HLA class II-associated genetic susceptibility in multiple sclerosis: a critical evaluation," Tissue Antigens 38:1-15 (1991).	
		Paty, et al., "Interferon beta-1b is effective in relapsing-remitting multiple sclerosis. II. MRI analysis results of a multicenter, randomized, double-blind, placebo-	
		(continued from line above) controlled trial. UCB MS/MRI Study Group and the IFNB Multiple Sclerosis Study Group," Neurology 43:662-667 (Apr. 1993).	
		Prossner, "Detecting single-base mutations", Tibtech 11: 238-246, (Jun. 1993).	
		Rossiter, et al., "Molecular studies of human genetic disease," FASEB Journal 5:21-27 (Jan. 1991).	
		Saiki, et al., "Analysis of enzymatically amplified B-globin and HLA-Dqa DNA with allele-specific oligonucleotide probes," Nature 324:163-166 (Nov. 13, 1986).	
		Saiki, et al., "Genetic analysis of amplified DNA with immobilized sequence-specific oligonucleotide probes," Proc. Natl. Acad. Sci. USA, 86:6230-6234 (Aug. 1989).	
		Sawcer, S., et al., "A genome screen in multiple sclerosis reveals susceptibility loci on chromosome 6p21 and 17q22", Nat Genet 13,464-8 (Aug. 13, 1996).	
		Schmidt, S, et al, "Association of Polymorphisms in the Apolipoprotein E Region with Susceptibility to and Progression of Multiple Sclerosis," Am J Hum Genet 70:708-17 (2002)	
		Smith, "Linkage scores and corrections in simple two-and three-generation families", Ann. Hum. Genet. 32, 127-150 (1968).	

Examiner		Date	
Signature		Considered	
*EVAMINED: I	tital if reference appointment whether as not situities is in conference with MOCD CO.	Describes the such a	itation if and in another contract

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (ceptoral). 2 Applicant is to pitize a check mark here if English language Translation is attached.

This collection of information is required by 37 CPR 1.8 The information is required to betain or retain a benefit by the public which is to fit on the property of the

PTO/SB/08B (07-05) Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449/PTO	Complete if Known	
	Application Number	10/596,062
INFORMATION DISCLOSURE		May 26, 2006
STATEMENT BY APPLICANT	First Named Inventor	Liu et al.
(Use as many sheets as necessary)	Art Unit	not yet assigned
(ose as many sneed as necessary)	Examiner Name	not yet assigned
Sheet 9 of 10	Attorney Docket Number	22727/04398

Examiner Cite Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title or the ltem (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
		Spielman, R. S. et al. "A Sibship Test for Linkage in the presence of association: The Sib Transmission/Disequilibrium Test," Am J Hum Genet 62:450-8 (1998).		
		Tobe, et al., "Single-well genotyping of diallelic sequence variations by a two-color ELISA-based oligonucleotide ligation assay," Nucleic Acids Res. 24 (19): 3728-3732 (1996)		
		Udenfriend, S. et al., "How glycosyl-phosphatidylinositol-anchored membrane proteins are made", Annu Rev Biochem 64:563-91 (1995).		
		Van der Schoot, et al. "Identification of three novel PI-linked proteins on granulocytes." In: Knapp, W.; et al., Leukocyte Typing IV: White Cell Differentiation Antigens,		
		(continued from line above) pp. 887-891. (Oxford Univ. Press, Oxford, 1989).		
		Wainright, "The isolation of disease genes by positional cloning", Med. J. Australia, 159, 170-174 (Aug. 2, 1993).		
		Weiner and Hafler, "Immunogherapy of multiple sclerosis," Ann. Neurol, 23:211-222 (1988).		
		Wu et al, "The ligation amplification reaction (LAR)amplification of specific DNA sequences using sequential rounds of template-dependent ligation" Genomics 4:560-569 (1989)		
		Wu, Y, et al "CD28-independent Induction of T Helper Cells and Immunoglobulin Class Switches Requires Costimulation by the Heat-stable Antigen" J Exp Med 187 (7):1151-1156		
		(continued from line above) (Apr. 6, 1998)		

Examiner	Date
Signature	Considered
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPE	P 609. Draw line through citation if not in conformance and not

considered. Include copy of this form with next communication to applicant.

Consideration unique charge in the form where (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 3T CFR 1.98. The information is required to bother or retain to benefit by the public which is to file (and by the USPTO to process) an application. Confideratingly is governed by 53 U.S. C. 122 and 152. журования в неружениями, импененным за учетение и за изъх. 1.42 mt з и чет 1.14. I mts controlled is signated to take 6.7 hours to complete, including flagelating, preparing, and submitting the completed application form to the USPTO. Time will yet depending upon the individual case, you comments of the amount of time you require to complete his form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, USP 2. Patent and Trademark Office, P.O. Box 1430, Alexandria, N.Z. 2313-1440, D.N. ONT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Approved for use through 07/31/2006. OMB 0851-0031

U.S. Patient and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patient and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Index the Panerwork Reduction Act of 1995, no persons are required to reapped to a collection of information unless it control number

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.						
Substitute for form 1449/PTO				Complete if Known		
				Application Number	10/596,062	
INFORMATION DISCLOSURE				Filing Date	May 26, 2006	
STATEMENT BY APPLICANT			PPLICANT	First Named Inventor	Liu et al.	
	(Use as many she	ofe se ni	ocessan/l	Art Unit	not yet assigned	
(out as many sheets as necessary)				Examiner Name	not yet assigned	
Sheet	10	of	10	Attorney Docket Number	22727/04398	

	L 011	NON PATENT LITERATURE DOCUMENTS	
Examiner nitials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Yamoka, et al., "Tight linkage of creatine kinase (CKMM) to myotonic dystrophy on chromosome 19," Neurology 40:222-226 (Feb. 1990).	
	ļ	Zarn, J. A., et al., "The small cell lung cancer antigen cluster-4 and the leukocyte antigen CD24 are allelic isoforms of the same gene (CD24) on chromosome band 6q21,"	
		(continued from line above) Cytogenet Cell Genet 70:119-25 (1995).	
		Zhou Q, et al "Homotypic interaction of the heat-stable antigen is not responsible for its co-stimulatory activity for T cell clonal expansion" Eur J Immunol 27:2524-2528 1997	
		Zhou, Q., et al., "CD24 is a genetic modifier for risk and progressin of multiple sclerosis," PNAS, 100 (25):15041-15046 (Dec. 9, 2003).	
		http://www-frodo.wi.mit.edu/cgi-bin/primer/primer3_www.cgi, 5 pgs. printed 08/25/06	
		International Search Report from PCT/US2004/039391, mailed June 6, 2005.	

Examiner Signature	/Carla Myers/	Date Considered	07/08/2009

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional).
 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 3° CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file fand by the USPTO to process) an application. Confidentially is govered by 50 t.S. C. 122 and 3° CFR 1.1. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chef Information (I.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DN DT SEND FESS OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.